IN THE SPECIFICATION

At page 78, line 12, delete "95".

At page 88, line 18, replace "*Cander*" with -- *Cancer* --.

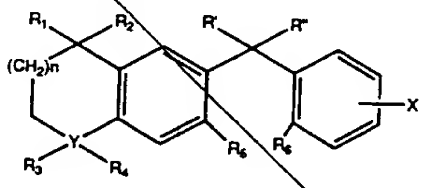
IN THE CLAIMS

In claim 4, as amended by Preliminary Amendment filed November 4, 1994, in the definition of R'" and R"", replace "alkyl, amino" with -- alkyl amino --.

Please amend claims 14-15, 18-19, and 25-32 as follows:

~~14~~. (Amended) A pharmaceutical composition comprising in a pharmaceutically acceptable vehicle suitable for enteral, parenteral, or topical administration, one or more ligands [of claim 2] which modulate a process selectively mediated by Retinoid X Receptors in preference to Retinoic Acid Receptors.

15. (Amended) A pharmaceutical composition comprising in a pharmaceutically acceptable vehicle suitable for enteral, parenteral, or topical administration, one or more compounds [of claim 4] having the formula:



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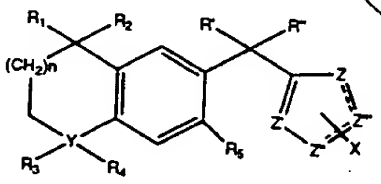

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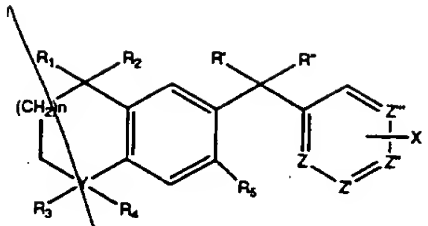

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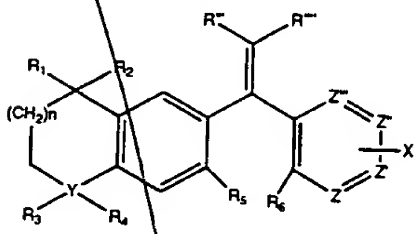

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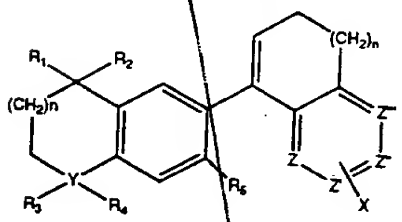

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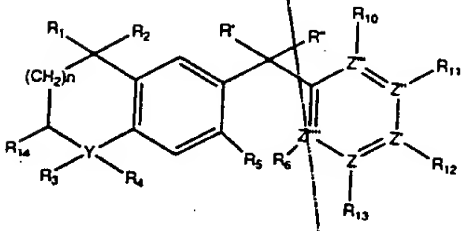

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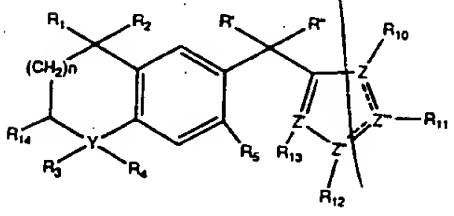


B'
cont'd

wherein

R_1 and R_2, each independently, represent hydrogen or lower alkyl or acyl having 1-4 carbon atoms;

Y represents C, O, S, N, CHOH, CO, SO, SO_2, or a pharmaceutically acceptable salt;

R_3 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C or N;

R_4 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C, but R_4 does not exist if Y is N, and neither R_3 or R_4 exist if Y is S, O, CHOH, CO, SO, or SO_2;

R' and R" represent hydrogen, lower alkyl or acyl having 1-4 carbon atoms, OH, alkoxy having 1-4 carbon atoms, thiol or thio ether, or amino,

or R' or R" taken together form an oxo (keto), methano, thioketo, HO-N=, NC-N=, $(R_7R_8)N$-N=, $R_{17}O$-N=, $R_{17}N$=, epoxy, cyclopropyl, or cycloalkyl group and wherein the epoxy, cyclopropyl, and cycloalkyl groups can be substituted with lower alkyl having 1-4 carbons or halogen;

R'" and R"" represent hydrogen, halogen, lower alkyl or acyl having 1-4 carbon atoms, alkyl amino,

or R'" and R"" taken together form a cycloalkyl group having 3-10 carbons, and wherein the cycloalkyl group can be substituted with lower alkyl having 1-4 carbons or halogen;

R_5 represents hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8, or $(CF)_nCF_3$, but R_5 cannot be hydrogen if together R_6, R_{10}, R_{11}, R_{12} and R_{13} are all hydrogen, Z, Z', Z", Z"', and Z"" are all carbon, and R' and R" represent H, OH, C_1-C_4 alkoxy or C_1-C_4 acyloxy or R' and R" taken together form an oxo, methano, or hydroxyimino group;

R_6, R_{10}, R_{11}, R_{12}, R_{13} each independently represent hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8 or

$(CF)_nCF_3$, and exist only if the Z, Z', Z", Z'", or Z"" from which it originates is C, or each independently represent hydrogen or a lower alkyl having 1-4 carbons if the Z, Z', Z", Z'", or Z"" from which it originates is N, and where one of R_6, R_{10}, R_{11}, R_{12} or R_{13} is X;

R_7 represents hydrogen or a lower alkyl having 1-6 carbons;

R_8 represents hydrogen or a lower alkyl having 1-6 carbons;

R_9 represents a lower alkyl having 1-4 carbons, phenyl, aromatic alkyl, or q-hydroxyphenyl, q-bromophenyl, q-chlorophenyl, q-florophenyl, or q-iodophenyl, where q=2-4;

R_{14} represents hydrogen, a lower alkyl having 1-4 carbons, oxo, hydroxy, acyl having 1-4 carbons, halogen, thiol, or thioketone;

R_{17} represents hydrogen, lower alkyl having 1-8 carbons, alkenyl (including halogen, acyl, OR_7 and SR_7 substituted alkenes), R_9, alkyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkyls), alkenyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkenes), alkyl amines (including halogen, acyl, OR_7 and SR_7 substituted alkyls), and alkenyl amines (including halogen, acryl, OR_7 and SR_7 substituted alkenes);

X is COOH, tetrazole, PO_3H, SO_3H, CHO, CH_2OH, $CONH_2$, COSH, $COOR_9$, $COSR_9$, $CONHR_9$, or COOW where W is a pharmaceutically acceptable salt, and where X can originate from any C or N on the ring, provided, however, that X cannot be COOH, CHO, CH_2OH, $COHN_2$, $COOR_9$, or COOW where W is a pharmaceutically acceptable salt when X originates from a C in the 2 or 6 position on the ring;

Z, Z', Z", Z"' and Z"", each independently, represent C, S, O, N, or a pharmaceutically acceptable salt, but is not O or S if attached by a double bond to another such Z or if attached to

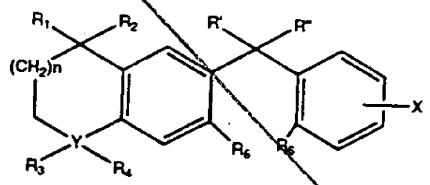
another such Z which is O or S, and is not N if attached by a single bond to another such Z which is N;

n = 0-3; and

the dashed lines in the second and seventh structures shown depict optional double bonds.

18. (Amended) A method for modulating a process mediated by one or more Retinoid X Receptors, said method comprising causing said process to be conducted in the presence of at least one ligand [as set forth in claim 2] which modulates a process selectively mediated by Retinoid X Receptors in preference to Retinoic Acid Receptors.

19. (Amended) A method for modulating a process mediated by one or more Retinoid X Receptors, said method comprising causing said process to be conducted in the presence of at least one compound [as set forth in claim 4] having the formula:



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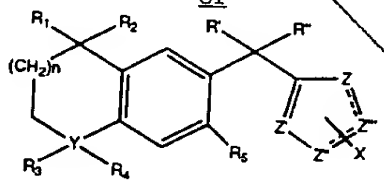

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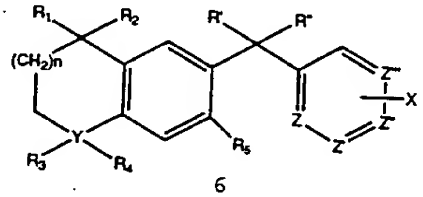

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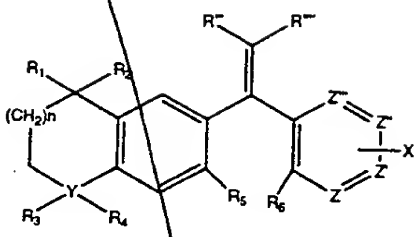

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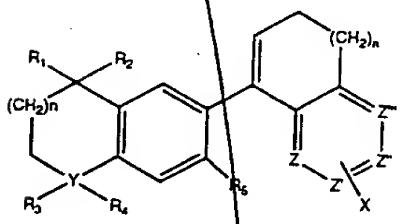

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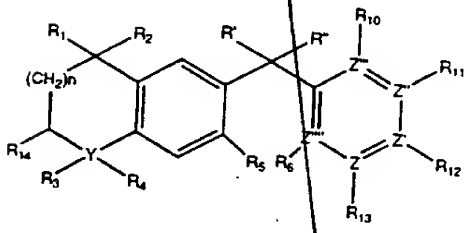

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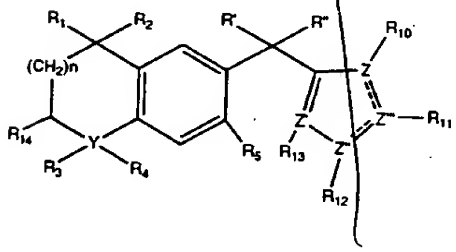


wherein

R_1 and R_2, each independently, represent hydrogen or lower alkyl or acyl having 1-4 carbon atoms;

Y represents C, O, S, N, CHOH, CO, SO, SO_2, or a pharmaceutically acceptable salt;

R_3 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C or N;

R_4 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C, but R_4 does not exist if Y is N, and neither R_3 or R_4 exist if Y is S, O, CHOH, CO, SO, or SO_2;

R' and R" represent hydrogen, lower alkyl or acyl having 1-4 carbon atoms, OH, alkoxy having 1-4 carbon atoms, thiol or thio ether, or amino,

or R' or R" taken together form an oxo (keto), methano, thioketo, HO-N=, NC-N=, $(R_7R_8)N$-N=, $R_{17}O$-N=, $R_{17}N$=, epoxy, cyclopropyl, or cycloalkyl group and wherein the epoxy, cyclopropyl, and cycloalkyl groups can be substituted with lower alkyl having 1-4 carbons or halogen;

R'" and R"" represent hydrogen, halogen, lower alkyl or acyl having 1-4 carbon atoms, alkyl amino,

or R'" and R"" taken together form a cycloalkyl group having 3-10 carbons, and wherein the cycloalkyl group can be substituted with lower alkyl having 1-4 carbons or halogen;

R_5 represents hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8, or $(CF)_nCF_3$, but R_5 cannot be hydrogen if together R_6, R_{10}, R_{11}, R_{12} and R_{13} are all hydrogen, Z, Z', Z", Z"', and Z"" are all carbon, and R' and R" represent H, OH, C_1-C_4 alkoxy or C_1-C_4 acyloxy or R' and R" taken together form an oxo, methano, or hydroxyimino group;

R_6, R_{10}, R_{11}, R_{12}, R_{13} each independently represent hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8 or

$(CF)_nCF_3$, and exist only if the Z, Z', Z", Z'", or Z"" from which it originates is C, or each independently represent hydrogen or a lower alkyl having 1-4 carbons if the Z, Z', Z", Z'", or Z"" from which it originates is N, and where one of R_6, R_{10}, R_{11}, R_{12} or R_{13} is X;

R_7 represents hydrogen or a lower alkyl having 1-6 carbons;

R_8 represents hydrogen or a lower alkyl having 1-6 carbons;

R_9 represents a lower alkyl having 1-4 carbons, phenyl, aromatic alkyl, or q-hydroxyphenyl, q-bromophenyl, q-chlorophenyl, q-florophenyl, or q-iodophenyl, where q=2-4;

R_{14} represents hydrogen, a lower alkyl having 1-4 carbons, oxo, hydroxy, acyl having 1-4 carbons, halogen, thiol, or thioketone;

R_{17} represents hydrogen, lower alkyl having 1-8 carbons, alkenyl (including halogen, acyl, OR_7 and SR_7 substituted alkenes), R_9, alkyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkyls), alkenyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkenes), alkyl amines (including halogen, acyl, OR_7 and SR_7 substituted alkyls), and alkenyl amines (including halogen, acryl, OR_7 and SR_7 substituted alkenes);

X is COOH, tetrazole, PO_3H, SO_3H, CHO, CH_2OH, $CONH_2$, COSH, $COOR_9$, $COSR_9$, $CONHR_9$, or COOW where W is a pharmaceutically acceptable salt, and where X can originate from any C or N on the ring, provided, however, that X cannot be COOH, CHO, CH_2OH, $COHN_2$, $COOR_9$, or COOW where W is a pharmaceutically acceptable salt when X originates from a C in the 2 or 6 position on the ring;

Z, Z', Z", Z"' and Z"", each independently, represent C, S, O, N, or a pharmaceutically acceptable salt, but is not O or S if attached by a double bond to another such Z or if attached to

another such Z which is O or S, and is not N if attached by a single bond to another such Z which is N;

n = 0-3; and

the dashed lines in the second and seventh structures shown depict optional double bonds.

21. (Amended) A method according to claim 19 wherein said process is the *in vivo* modulation of lipid metabolism, *in vivo* modulation of skin-related processes, *in vivo* modulation of autoimmune diseases, *in vivo* modulation of fatty acid metabolism, *in vivo* modulation of malignant cell development, [or] *in vivo* modulation of premalignant lesions, or *in vivo* modulation of programmed cell death.

~~25~~ 22. (Amended) A method for modulating a process mediated by one or more Retinoid X Receptors, said method comprising causing said process to be conducted in the presence of at least one compound [as set forth in claim 6] selected from the group consisting of 4-[(3,5,5,8,8-pentamethyl-5,6,7,8-tetrahydro-2-naphthyl)carbonyl]benzoic acid,

4-[1-(3,5,5,8,8-pentamethyl-5,6,7,8-tetrahydro-2-naphthyl)ethenyl]benzoic acid,

4-[1-(3-5,5,8,8-pentamethyl-5,6,7,8-tetrahydro-2-naphthyl)cyclopropyl]benzoic acid,

4-[1-(3,5,5,8,8-pentamethyl-5,6,7,8-tetrahydro-2-naphthyl)ethenyl]benzenetetrazole,

2-[1-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)ethenyl]pyridine-5-carboxylic acid,

2-[1-(3,5,5,8,8-pentamethyl-5,6,7,8-tetrahydro-2-naphthyl)ethenyl]pyridine-5-carboxylic acid,

ethyl 2-[1-(3,5,5,8,8-pentamethyl-5,6,7,8-tetrahydro-2-naphthyl)ethenyl]pyridine-5-carboxylate,

5-[1-3,5,5,8,8-pentamethyl-5,6,7,8-tetrahydro-2-naphthyl)ethenyl]pyridine-2-carboxylic acid,

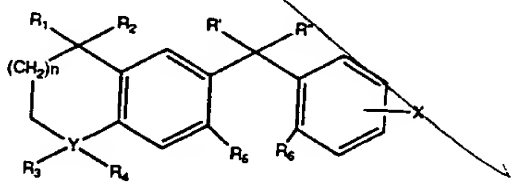
2-[1-(3,5,5,8,8-pentamethyl-5,6,7,8-tetrahydro-2-naphthyl)cyclopropyl]pyridine-5-carboxylic acid,

methyl 2-[1-(3,5,5,8,8-pentamethyl-5,6,7,8-tetrahydro-2-naphthyl)cyclopropyl]pyridine-5-carboxylate, and

4-[1-(3,5,5,8,8-pentamethyl-5,6,7,8-tetrahydro-2-naphthyl)ethenyl]-N-(4-hydroxyphenyl)benzamide.

23 ~~26~~. (Amended) A method for modulating a process mediated by one or more Retinoid X Receptors, said method comprising administering to a mammalian subject an amount, effective to modulate said process mediated by said one or more Retinoid X Receptors, of one or more ligands [of claim 2] which modulate a process selectively mediated by Retinoid X Receptors in preference to Retinoic Acid Receptors.

27. (Amended) A method for modulating a process mediated by one or more Retinoid X Receptors, said method comprising administering to a mammalian subject an amount, effective to modulate said process mediated by said one or more Retinoid X Receptors, of one or more compounds [of claim 4] having the formula:



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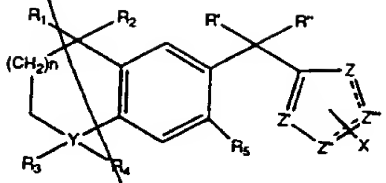

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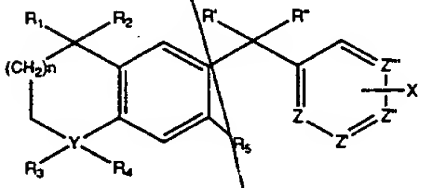

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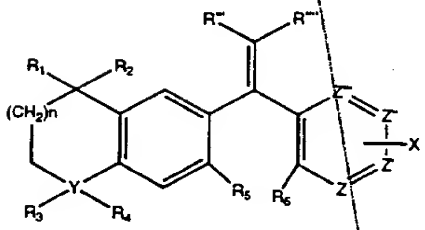

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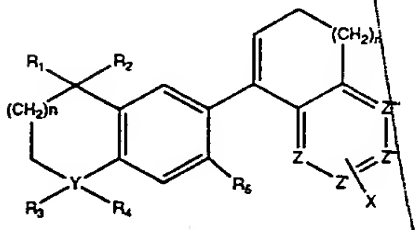

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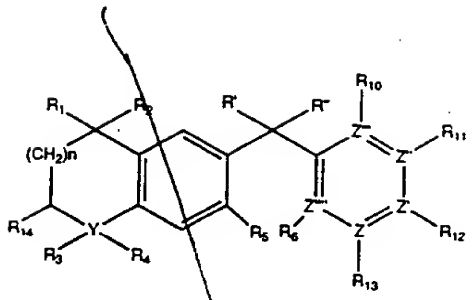

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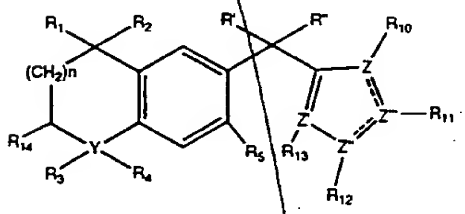


wherein

R_1 and R_2, each independently, represent hydrogen or lower alkyl or acyl having 1-4 carbon atoms;

Y represents C, O, S, N, CHOH, CO, SO, SO_2, or a pharmaceutically acceptable salt;

R_3 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C or N;

R_4 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C, but R_4 does not exist if Y is N, and neither R_3 or R_4 exist if Y is S, O, CHOH, CO, SO, or SO_2;

R' and R" represent hydrogen, lower alkyl or acyl having 1-4 carbon atoms, OH, alkoxy having 1-4 carbon atoms, thiol or thio ether, or amino,

or R' or R" taken together form an oxo (keto), methano, thioketo, HO-N=, NC-N=, $(R_7R_8)N$-N=, $R_{17}O$-N=, $R_{17}N$=, epoxy, cyclopropyl, or cycloalkyl group and wherein the epoxy, cyclopropyl, and cycloalkyl groups can be substituted with lower alkyl having 1-4 carbons or halogen;

R'" and R"" represent hydrogen, halogen, lower alkyl or acyl having 1-4 carbon atoms, alkyl amino,

or R'" and R"" taken together form a cycloalkyl group having 3-10 carbons, and wherein the cycloalkyl group can be substituted with lower alkyl having 1-4 carbons or halogen;

R_5 represents hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8, or $(CF)_nCF_3$, but R_5 cannot be hydrogen if together R_6, R_{10}, R_{11}, R_{12} and R_{13} are all hydrogen, Z, Z', Z", Z"', and Z"" are all carbon, and R' and R" represent H, OH, C_1-C_4 alkoxy or C_1-C_4 acyloxy or R' and R" taken together form an oxo, methano, or hydroxyimino group;

R_6, R_{10}, R_{11}, R_{12}, R_{13} each independently represent hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8 or $(CF)_nCF_3$, and exist only if the Z, Z', Z", Z'", or Z"" from which it originates is C, or each independently represent hydrogen or a lower alkyl having 1-4 carbons if the Z, Z', Z", Z'", or Z"" from which it originates is N, and where one of R_6, R_{10}, R_{11}, R_{12} or R_{13} is X;

R_7 represents hydrogen or a lower alkyl having 1-6 carbons;

R_8 represents hydrogen or a lower alkyl having 1-6 carbons;

R_9 represents a lower alkyl having 1-4 carbons, phenyl, aromatic alkyl, or q-hydroxyphenyl, q-bromophenyl, q-chlorophenyl, q-florophenyl, or q-iodophenyl, where q=2-4;

R_{14} represents hydrogen, a lower alkyl having 1-4 carbons, oxo, hydroxy, acyl having 1-4 carbons, halogen, thiol, or thioketone;

R_{17} represents hydrogen, lower alkyl having 1-8 carbons, alkenyl (including halogen, acyl, OR_7 and SR_7 substituted alkenes), R_9, alkyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkyls), alkenyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkenes), alkyl amines

(including halogen, acyl, OR_7 and SR_7 substituted alkyls), and alkenyl amines (including halogen, acryl, OR_7 and SR_7 substituted alkenes);

X is COOH, tetrazole, PO_3H, SO_3H, CHO, CH_2OH, $CONH_2$, COSH, $COOR_9$, $COSR_9$, $CONHR_9$, or COOW where W is a pharmaceutically acceptable salt, and where X can originate from any C or N on the ring, provided, however, that X cannot be COOH, CHO, CH_2OH, $COHN_2$, $COOR_9$, or COOW where W is a pharmaceutically acceptable salt when X originates from a C in the 2 or 6 position on the ring;

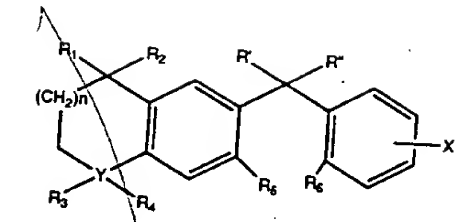
Z, Z', Z", Z"' and Z"", each independently, represent C, S, O, N, or a pharmaceutically acceptable salt, but is not O or S if attached by a double bond to another such Z or if attached to another such Z which is O or S, and is not N if attached by a single bond to another such Z which is N;

n = 0-3; and

the dashed lines in the second and seventh structures shown ~~depict optional double bonds~~.

25 ~~28~~. (Amended) A method for treating a mammalian subject requiring Retinoid X Receptor therapy comprising administering to such subject a pharmaceutically effective amount of one or more ligands [as set forth in claim 2] which modulates a process selectively mediated by Retinoid X Receptors in preference to Retinoic Acid Receptors.

29. (~~Amended~~) A method for treating a mammalian subject requiring Retinoid X Receptor therapy comprising administering to such subject a pharmaceutically effective amount of one or more compounds [as set forth in claim 4] having the formula:



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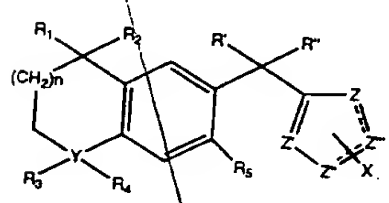

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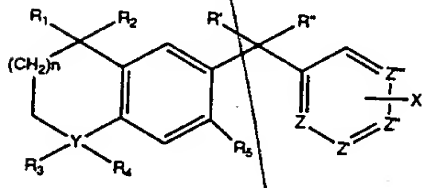

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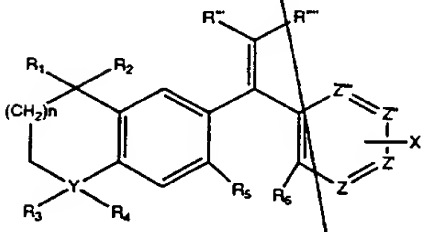

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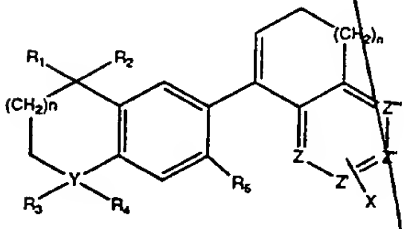

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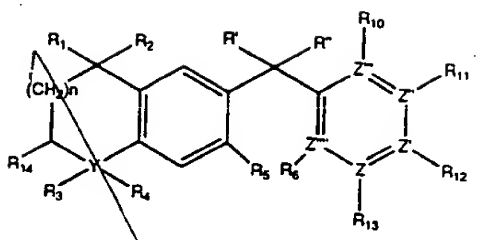

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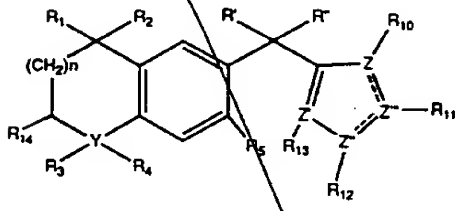


wherein

R_1 and R_2, each independently, represent hydrogen or lower alkyl or acyl having 1-4 carbon atoms;

Y represents C, O, S, N, CHOH, CO, SO, SO_2, or a pharmaceutically acceptable salt;

R_3 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C or N;

R_4 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C, but R_4 does not exist if Y is N, and neither R_3 or R_4 exist if Y is S, O, CHOH, CO, SO, or SO_2;

R' and R" represent hydrogen, lower alkyl or acyl having 1-4 carbon atoms, OH, alkoxy having 1-4 carbon atoms, thiol or thio ether, or amino,

or R' or R" taken together form an oxo (keto), methano, thioketo, HO-N=, NC-N=, $(R_7R_8)N$-N=, $R_{17}O$-N=, $R_{17}N$=, epoxy, cyclopropyl, or cycloalkyl group and wherein the epoxy, cyclopropyl, and cycloalkyl groups can be substituted with lower alkyl having 1-4 carbons or halogen;

R'" and R"" represent hydrogen, halogen, lower alkyl or acyl having 1-4 carbon atoms, alkyl amino,

or R'" and R"" taken together form a cycloalkyl group having 3-10 carbons, and wherein the cycloalkyl group can be substituted with lower alkyl having 1-4 carbons or halogen;

R_5 represents hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8, or $(CF)_nCF_3$, but R_5 cannot be hydrogen if together R_6, R_{10}, R_{11}, R_{12} and R_{13} are all hydrogen, Z, Z', Z", Z"', and Z"" are all carbon, and R' and R" represent H, OH, C_1-C_4 alkoxy or C_1-C_4 acyloxy or R' and R" taken together form an oxo, methano, or hydroxyimino group;

R_6, R_{10}, R_{11}, R_{12}, R_{13} each independently represent hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8 or $(CF)_nCF_3$, and exist only if the Z, Z', Z", Z'", or Z"" from which it originates is C, or each independently represent hydrogen or a lower alkyl having 1-4 carbons if the Z, Z', Z", Z'", or Z"" from which it originates is N, and where one of R_6, R_{10}, R_{11}, R_{12} or R_{13} is X;

R_7 represents hydrogen or a lower alkyl having 1-6 carbons;

R_8 represents hydrogen or a lower alkyl having 1-6 carbons;

R_9 represents a lower alkyl having 1-4 carbons, phenyl, aromatic alkyl, or q-hydroxyphenyl, q-bromophenyl, q-chlorophenyl, q-florophenyl, or q-iodophenyl, where q=2-4;

R_{14} represents hydrogen, a lower alkyl having 1-4 carbons, oxo, hydroxy, acyl having 1-4 carbons, halogen, thiol, or thioketone;

R_{17} represents hydrogen, lower alkyl having 1-8 carbons, alkenyl (including halogen, acyl, OR_7 and SR_7 substituted alkenes), R_9, alkyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkyls), alkenyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkenes), alkyl amines (including halogen, acyl, OR_7 and SR_7 substituted alkyls), and

alkenyl amines (including halogen, acryl, OR_7 and SR_7 substituted alkenes);

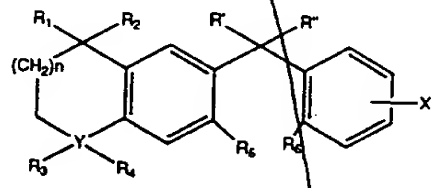
X is COOH, tetrazole, PO_3H, SO_3H, CHO, CH_2OH, $CONH_2$, COSH, $COOR_9$, $COSR_9$, $CONHR_9$, or COOW where W is a pharmaceutically acceptable salt, and where X can originate from any C or N on the ring; provided, however, that X cannot be COOH, CHO, CH_2OH, $COHN_2$, $COOR_9$, or COOW where W is a pharmaceutically acceptable salt when X originates from a C in the 2 or 6 position on the ring;

Z, Z', Z", Z"' and Z"", each independently, represent C, S, O, N, or a pharmaceutically acceptable salt, but is not O or S if attached by a double bond to another such Z or if attached to another such Z which is O or S, and is not N if attached by a single bond to another such Z which is N;

n = 0-3; and

the dashed lines in the second and seventh structures shown depict optional double bonds.

30. (Amended) A method for increasing plasma concentrations of high density lipoprotein in a mammalian subject comprising administering to such subject a pharmaceutically effective amount of one or more compounds [as set forth in claim 4] having the formula:



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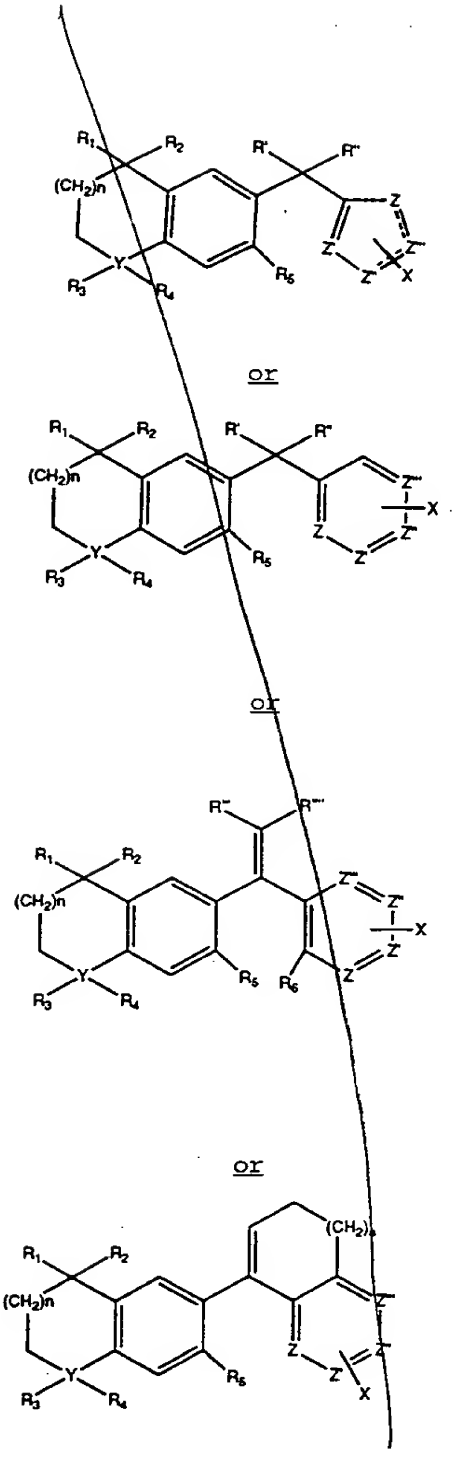

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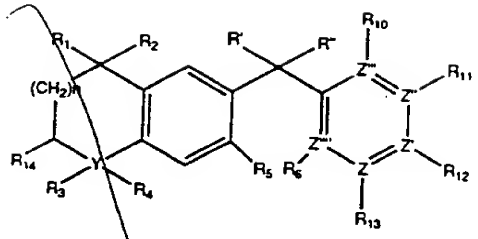

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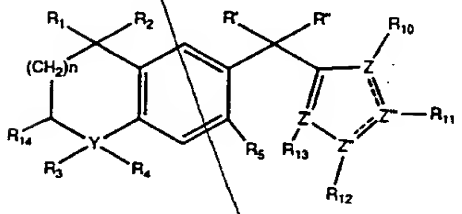


wherein

R_1 and R_2, each independently, represent hydrogen or lower alkyl or acyl having 1-4 carbon atoms;

Y represents C, O, S, N, CHOH, CO, SO, SO_2, or a pharmaceutically acceptable salt;

R_3 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C or N;

R_4 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C, but R_4 does not exist if Y is N, and neither R_3 or R_4 exist if Y is S, O, CHOH, CO, SO, or SO_2;

R' and R" represent hydrogen, lower alkyl or acyl having 1-4 carbon atoms, OH, alkoxy having 1-4 carbon atoms, thiol or thio ether, or amino,

or R' or R" taken together form an oxo (keto), methano, thioketo, HO-N=, NC-N=, $(R_7R_8)N$-N=, $R_{17}O$-N=, $R_{17}N$=, epoxy, cyclopropyl, or cycloalkyl group and wherein the epoxy,

cyclopropyl, and cycloalkyl groups can be substituted with lower alkyl having 1-4 carbons or halogen;

R'" and R"" represent hydrogen, halogen, lower alkyl or acyl having 1-4 carbon atoms, alkyl amino,

or R'" and R"" taken together form a cycloalkyl group having 3-10 carbons, and wherein the cycloalkyl group can be substituted with lower alkyl having 1-4 carbons or halogen;

R_5 represents hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8, or $(CF)_nCF_3$, but R_5 cannot be hydrogen if together R_6, R_{10}, R_{11}, R_{12} and R_{13} are all hydrogen, Z, Z', Z", Z"', and Z"" are all carbon, and R' and R" represent H, OH, C_1-C_4 alkoxy or C_1-C_4 acyloxy or R' and R" taken together form an oxo, methano, or hydroxyimino group;

R_6, R_{10}, R_{11}, R_{12}, R_{13} each independently represent hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8 or $(CF)_nCF_3$, and exist only if the Z, Z', Z", Z'", or Z"" from which it originates is C, or each independently represent hydrogen or a lower alkyl having 1-4 carbons if the Z, Z', Z", Z'", or Z"" from which it originates is N, and where one of R_6, R_{10}, R_{11}, R_{12} or R_{13} is X;

R_7 represents hydrogen or a lower alkyl having 1-6 carbons;

R_8 represents hydrogen or a lower alkyl having 1-6 carbons;

R_9 represents a lower alkyl having 1-4 carbons, phenyl, aromatic alkyl, or q-hydroxyphenyl, q-bromophenyl, q-chlorophenyl, q-florophenyl, or q-iodophenyl, where q=2-4;

R_{14} represents hydrogen, a lower alkyl having 1-4 carbons, oxo, hydroxy, acyl having 1-4 carbons, halogen, thiol, or thioketone;

R_{17} represents hydrogen, lower alkyl having 1-8 carbons, alkenyl (including halogen, acyl, OR_7 and SR_7 substituted alkenes), R_9, alkyl carboxylic acid (including halogen, acyl, OR_7

and SR_7 substituted alkyls), alkenyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkenes), alkyl amines (including halogen, acyl, OR_7 and SR_7 substituted alkyls), and alkenyl amines (including halogen, acryl, OR_7 and SR_7 substituted alkenes);

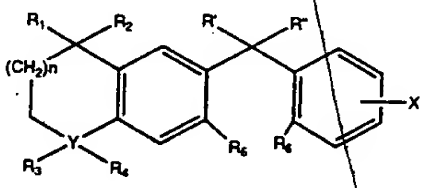
X is COOH, tetrazole, PO_3H, SO_3H, CHO, CH_2OH, $CONH_2$, COSH, $COOR_9$, $COSR_9$, $CONHR_9$, or COOW where W is a pharmaceutically acceptable salt, and where X can originate from any C or N on the ring, provided, however, that X cannot be COOH, CHO, CH_2OH, $COHN_2$, $COOR_9$, or COOW where W is a pharmaceutically acceptable salt when X originates from a C in the 2 or 6 position on the ring;

Z, Z', Z", Z"' and Z"", each independently, represent C, S, O, N, or a pharmaceutically acceptable salt, but is not O or S if attached by a double bond to another such Z or if attached to another such Z which is O or S, and is not N if attached by a single bond to another such Z which is N;

n = 0-3; and

the dashed lines in the second and seventh structures shown depict optional double bonds.

31. (Amended) A method for determining the presence of one or more Retinoid X Receptors comprising combining a compound [of claim 4] as set forth below with a sample containing one or more unknown receptors and determining whether said compound binds to any receptor in said sample, said compound having the formula:



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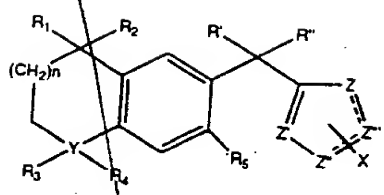

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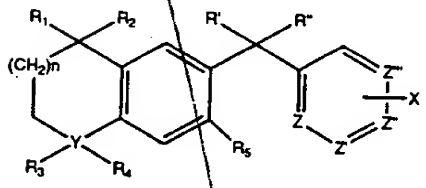

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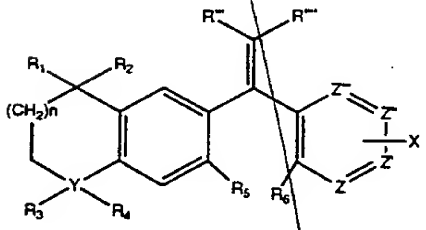

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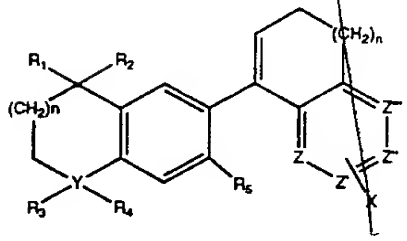

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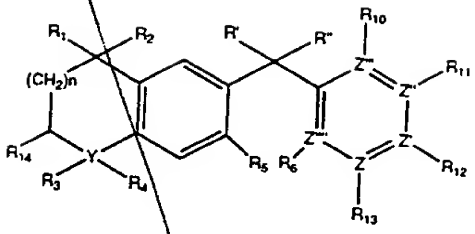

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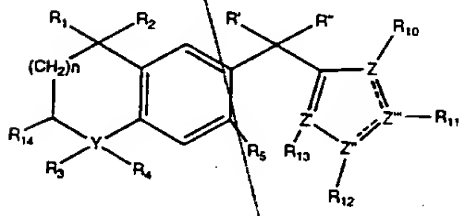

wherein

R_1 and R_2, each independently, represent hydrogen or lower alkyl or acyl having 1-4 carbon atoms;

Y represents C, O, S, N, CHOH, CO, SO, SO_2, or a pharmaceutically acceptable salt;

R_3 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C or N;

R_4 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C, but R_4 does not exist if Y is N, and neither R_3 or R_4 exist if Y is S, O, CHOH, CO, SO, or SO_2;

R' and R" represent hydrogen, lower alkyl or acyl having 1-4 carbon atoms, OH, alkoxy having 1-4 carbon atoms, thiol or thio ether, or amino,

or R' or R" taken together form an oxo (keto), methano, thioketo, HO-N=, NC-N=, $(R_7R_8)N$-N=, $R_{17}O$-N=, $R_{17}N$=, epoxy, cyclopropyl, or cycloalkyl group and wherein the epoxy,

cyclopropyl, and cycloalkyl groups can be substituted with lower alkyl having 1-4 carbons or halogen;

R'" and R"" represent hydrogen, halogen, lower alkyl or acyl having 1-4 carbon atoms, alkyl amino,

or R'" and R"" taken together form a cycloalkyl group having 3-10 carbons, and wherein the cycloalkyl group can be substituted with lower alkyl having 1-4 carbons or halogen;

R_5 represents hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8, or $(CF)_nCF_3$, but R_5 cannot be hydrogen if together R_6, R_{10}, R_{11}, R_{12} and R_{13} are all hydrogen, Z, Z', Z", Z"', and Z"" are all carbon, and R' and R" represent H, OH, C_1-C_4 alkoxy or C_1-C_4 acyloxy or R' and R" taken together form an oxo, methano, or hydroxyimino group;

R_6, R_{10}, R_{11}, R_{12}, R_{13} each independently represent hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8 or $(CF)_nCF_3$, and exist only if the Z, Z', Z", Z'", or Z"" from which it originates is C, or each independently represent hydrogen or a lower alkyl having 1-4 carbons if the Z, Z', Z", Z'", or Z"" from which it originates is N, and where one of R_6, R_{10}, R_{11}, R_{12} or R_{13} is X;

R_7 represents hydrogen or a lower alkyl having 1-6 carbons;

R_8 represents hydrogen or a lower alkyl having 1-6 carbons;

R_9 represents a lower alkyl having 1-4 carbons, phenyl, aromatic alkyl, or q-hydroxyphenyl, q-bromophenyl, q-chlorophenyl, q-florophenyl, or q-iodophenyl, where q=2-4;

R_{14} represents hydrogen, a lower alkyl having 1-4 carbons, oxo, hydroxy, acyl having 1-4 carbons, halogen, thiol, or thioketone;

R_{17} represents hydrogen, lower alkyl having 1-8 carbons, alkenyl (including halogen, acyl, OR_7 and SR_7 substituted alkenes), R_9, alkyl carboxylic acid (including halogen, acyl, OR_7

and SR_7 substituted alkyls), alkenyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkenes), alkyl amines (including halogen, acyl, OR_7 and SR_7 substituted alkyls), and alkenyl amines (including halogen, acryl, OR_7 and SR_7 substituted alkenes);

X is COOH, tetrazole, PO_3H, SO_3H, CHO, CH_2OH, $CONH_2$, COSH, $COOR_9$, $COSR_9$, $CONHR_9$, or COOW where W is a pharmaceutically acceptable salt, and where X can originate from any C or N on the ring, provided, however, that X cannot be COOH, CHO, CH_2OH, $COHN_2$, $COOR_9$, or COOW where W is a pharmaceutically acceptable salt when X originates from a C in the 2 or 6 position on the ring;

Z, Z', Z", Z"' and Z"", each independently, represent C, S, O, N, or a pharmaceutically acceptable salt, but is not O or S if attached by a double bond to another such Z or if attached to another such Z which is O or S, and is not N if attached by a single bond to another such Z which is N;

n = 0-3; and

the dashed lines in the second and seventh structures shown depict optional double bonds.

32. (Amended) A method of purifying Retinoid X Receptors comprising combining a compound as set forth [in claim 4] below with a sample containing one or more said Retinoid X Receptors, allowing said compound to bind with Retinoid X Receptors, and separating out the bound combination of said compound and Retinoid X Receptor, said compound having the formula:

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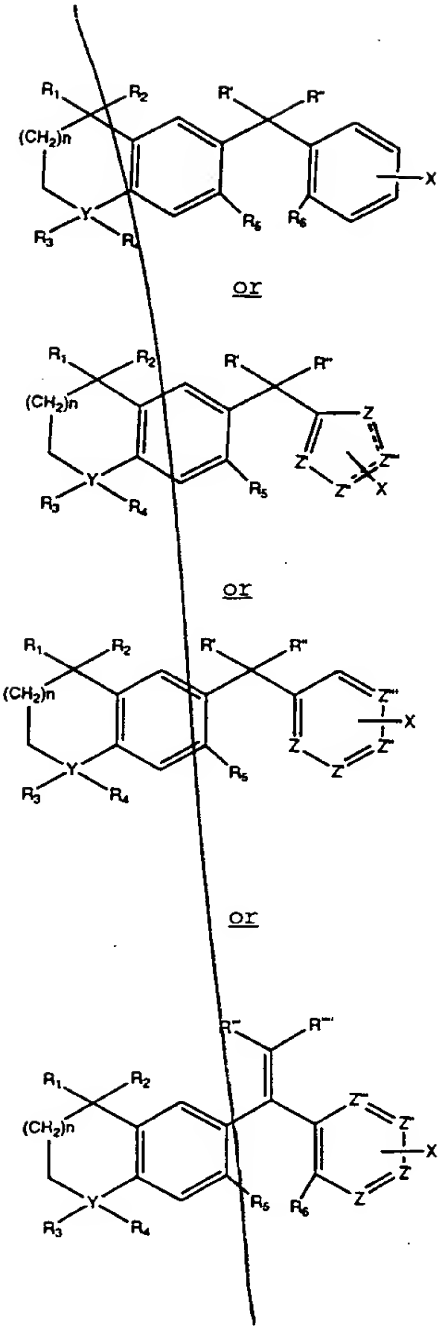

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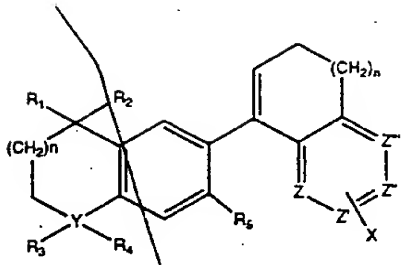

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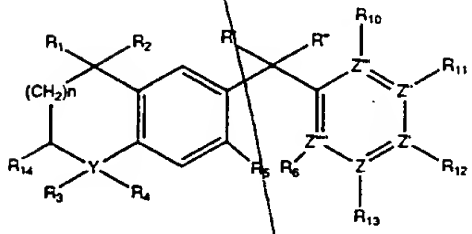

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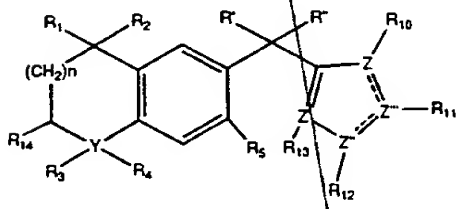

B4 cont'd

wherein

R_1 and R_2, each independently, represent hydrogen or lower alkyl or acyl having 1-4 carbon atoms;

Y represents C, O, S, N, CHOH, CO, SO, SO_2, or a pharmaceutically acceptable salt;

R_3 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C or N;

R_4 represents hydrogen or lower alkyl having 1-4 carbon atoms where Y is C, but R_4 does not exist if Y is N, and neither R_3 or R_4 exist if Y is S, O, CHOH, CO, SO, or SO_2;

R' and R" represent hydrogen, lower alkyl or acyl having 1-4 carbon atoms, OH, alkoxy having 1-4 carbon atoms, thiol or thio ether, or amino,

or R' or R" taken together form an oxo (keto), methano, thioketo, HO-N=, NC-N=, $(R_7R_8)N$-N=, $R_{17}O$-N=, $R_{17}N$=, epoxy, cyclopropyl, or cycloalkyl group and wherein the epoxy, cyclopropyl, and cycloalkyl groups can be substituted with lower alkyl having 1-4 carbons or halogen;

R'" and R"" represent hydrogen, halogen, lower alkyl or acyl having 1-4 carbon atoms, alkyl amino,

or R'" and R"" taken together form a cycloalkyl group having 3-10 carbons, and wherein the cycloalkyl group can be substituted with lower alkyl having 1-4 carbons or halogen;

R_5 represents hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8, or $(CF)_nCF_3$, but R_5 cannot be hydrogen if together R_6, R_{10}, R_{11}, R_{12} and R_{13} are all hydrogen, Z, Z', Z", Z"', and Z"" are all carbon, and R' and R" represent H, OH, C_1-C_4 alkoxy or C_1-C_4 acyloxy or R' and R" taken together form an oxo, methano, or hydroxyimino group;

R_6, R_{10}, R_{11}, R_{12}, R_{13} each independently represent hydrogen, a lower alkyl having 1-4 carbons, halogen, nitro, OR_7, SR_7, NR_7R_8 or $(CF)_nCF_3$, and exist only if the Z, Z', Z", Z'", or Z"" from which it originates is C, or each independently represent hydrogen or a lower alkyl having 1-4 carbons if the Z, Z', Z", Z'", or Z"" from which it originates is N, and where one of R_6, R_{10}, R_{11}, R_{12} or R_{13} is X;

R_7 represents hydrogen or a lower alkyl having 1-6 carbons;

R_8 represents hydrogen or a lower alkyl having 1-6 carbons;

R_9 represents a lower alkyl having 1-4 carbons, phenyl, aromatic alkyl, or q-hydroxyphenyl, q-bromophenyl, q-chlorophenyl, q-florophenyl, or q-iodophenyl, where q=2-4;

R_{14} represents hydrogen, a lower alkyl having 1-4 carbons, oxo, hydroxy, acyl having 1-4 carbons, halogen, thiol, or thioketone;

R_{17} represents hydrogen, lower alkyl having 1-8 carbons, alkenyl (including halogen, acyl, OR_7 and SR_7 substituted alkenes), R_9, alkyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkyls), alkenyl carboxylic acid (including halogen, acyl, OR_7 and SR_7 substituted alkenes), alkyl amines (including halogen, acyl, OR_7 and SR_7 substituted alkyls), and alkenyl amines (including halogen, acryl, OR_7 and SR_7 substituted alkenes);

X is COOH, tetrazole, PO_3H, SO_3H, CHO, CH_2OH, $CONH_2$, COSH, $COOR_9$, $COSR_9$, $CONHR_9$, or COOW where W is a pharmaceutically acceptable salt, and where X can originate from any C or N on the ring, provided, however, that X cannot be COOH, CHO, CH_2OH, $COHN_2$, $COOR_9$, or COOW where W is a pharmaceutically acceptable salt when X originates from a C in the 2 or 6 position on the ring;

Z, Z', Z", Z"' and Z"", each independently, represent C, S, O, N, or a pharmaceutically acceptable salt, but is not O or S if attached by a double bond to another such Z or if attached to another such Z which is O or S, and is not N if attached by a single bond to another such Z which is N;

n = 0-3; and

the dashed lines in the second and seventh structures shown depict optional double bonds.

B4 cancel

40. (Amended) The method of claim 38 wherein said process is the *in vivo* modulation of lipid metabolism, *in vivo* modulation of skin-related processes, *in vivo* modulation of autoimmune diseases, *in vivo* modulation of fatty acid metabolism, *in vivo* modulation of malignant cell development, *in vivo* modulation of premalignant lesions, or *in vivo* modulation of programmed cell death.

Please add the following new claims:

45. A therapeutic process comprising administering to a subject a compound which in a co-transfection assay is at least three times more potent an activator of a Retinoid X Receptor than a Retinoic Acid Receptor.

46. A therapeutic process according to claim 45, wherein said compound is at least five times more potent an activator of a Retinoid X Receptor than a Retinoic Acid Receptor.

47. A therapeutic process according to claim 45, wherein said compound is useful to modulate *in vivo* lipid metabolism, *in vivo* skin-related processes, *in vivo* autoimmune diseases, *in vivo* fatty acid metabolism, *in vivo* malignant cell development, *in vivo* premalignant lesions, or *in vivo* programmed cell death.

48. A therapeutic process according to claim 45, wherein said compound is useful to treat dermatological conditions, keratinization disorders, proliferative disorders, differentiation disorders, comedolytic activity, cancer,

inflammatory diseases, cardiovascular disorders, apolipoprotein A1 metabolism, or plasma HDL levels.

49. A therapeutic process according to claim 45, wherein said compound is useful to treat acne, psoriasis, aging, wrinkling, acute promyelocytic leukemia, mammary cancer, prostate cancer, lung cancer, cancers of the aerodigestive pathway, skin cancer, bladder cancer, sarcomas, or leukoplakias.

50. A compound which is an activator of a Retinoid X Receptor in a co-transfection assay, which compound is at least three times more potent an activator of the Retinoid X Receptor than a Retinoic Acid Receptor in the co-transaction assay.

51. A compound according to claim 50, wherein said compound is at least five times more potent an activator of a Retinoid X Receptor than a Retinoic Acid Receptor.

52. A compound which modulates a process mediated by a Retinoid X Receptor, wherein said compound selectively activates one or more Retinoid X Receptors in preference to Retinoic Acid Receptors.

53. A pharmaceutical composition comprising a compound which is at least three times more potent an activator of a Retinoid X Receptor than a Retinoic Acid Receptor in a co-transfection assay in combination with a pharmaceutically acceptable vehicle.

54. A pharmaceutical composition comprising a compound which modulates a process mediated by a Retinoid X Receptor in

combination with a pharmaceutically acceptable vehicle, wherein said compound selectively activates one or more Retinoid X Receptors in preference to Retinoic Acid Receptors.

55. A method for modulating a process mediated by one or more Retinoid X Receptors, said method comprising causing said process to be conducted in the presence of at least one compound which is at least three times more potent an activator of one or more of the Retinoid X Receptors than one or more Retinoic Acid Receptors in a co-transfection assay.

56. A method for modulating a process according to claim 55, wherein the process is the *in vivo* modulation of lipid metabolism, skin-related processes, autoimmune diseases, fatty acid metabolism, malignant cell development, premalignant lesions, or programmed cell death.

57. A method for treating a mammalian subject requiring Retinoid X Receptor therapy comprising administering to such a subject a pharmaceutically effective amount of a compound which is at least three times more potent an activator of a Retinoid X Receptor than a Retinoic Acid Receptor in a co-transfection assay.

58. A method for treating a mammalian subject according to claim 57, wherein the Retinoid X Receptor therapy comprises the *in vivo* modulation of lipid metabolism, skin-related processes, auto-immune diseases, fatty acid metabolism, malignant cell development, premalignant lesions, or programmed cell death.